

**APALACHICOLA RIVER BASIN  
2004 Water Year**

**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA**

**LOCATION.**—Lat  $33^{\circ}46'46''$ , long  $84^{\circ}19'59''$  referenced to North American Datum (NAD) of 1927, DeKalb County, Hydrologic Unit Code 03130001, at culvert on LULLWATER Parkway, 0.7 miles upstream of Peavine Creek, 0.4 miles northeast of US 23, GA 8, and 0.7 miles east of the DeKalb County line.

**DRAINAGE AREA.**—6.48 square miles.

**COOPERATION.**—City of Atlanta.

**PERIODIC WATER-QUALITY RECORDS**

**PERIOD OF RECORD.**—September 4, 2003 to current year.

**REMARKS.**—Medium code 9 indicates a surface water sample. Medium code 1 indicates a suspended sediment sample. Samples without a medium code are surface water samples. Hydrologic event 9 indicates a routine sample while J designates a storm event sample. Laboratory chemical analyses with analyzing agency code 80020 are by the U.S. Geological Survey, National Water Quality Laboratory. Laboratory chemical analyses with analyzing code 81345 are by the U.S. Geological Survey, Panola Mountain Laboratory. Laboratory sediment analyses with analyzing code 81350 are by the U.S. Geological Survey, Sediment Partitioning Research Laboratory. Field determinations of discharge, specific conductance, pH, water temperature, turbidity, and dissolved oxygen are by the U.S. Geological Survey.

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**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	End time	Medium code	Hydro-logic event	Agency ana-lyzing sample, code (00028)	Gage height, feet (00065)	Dis-charge, cfs (00060)	Instan-taneous dis-charge, cfs (00061)	Turb-idity, light, 90 deg, FNU (63680)	IR LED	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
OCT														
16...	1120	--	9	9	81345	3.45	--	1.3	1.9	742	9.3	91	7.3	
16...	1140	--	9	9	81345	3.45	--	1.3	1.9	742	9.3	91	7.3	
JAN														
05...	1010	--	9	9	81345	3.54	--	2.4	5.5	--	9.6	95	6.8	
05...	1025	--	9	9	81345	3.54	--	2.4	3.8	--	9.6	95	6.8	
21...	1545	--	9	9	81345	3.55	--	.89	1.1	744	13.4	116	7.5	
21...	1615	--	9	9	81345	3.55	--	.89	2.4	744	13.3	115	7.5	
FEB														
02...	1125	--	9	9	81345	3.46	--	1.7	1.7	739	12.4	105	7.2	
02...	1150	--	9	9	81345	3.46	--	1.7	1.3	739	12.4	105	7.2	
MAR														
02...	1200	--	9	9	81345	--	--	1.2	3.2	754	13.8	138	8.1	
02...	1215	--	9	9	81345	--	--	1.2	4.2	754	14.0	141	8.1	
23...	1330	--	9	9	81345	3.47	--	1.0	2.9	759	13.9	134	8.6	
23...	1345	--	9	9	81345	3.47	--	1.0	2.7	759	13.9	134	8.7	
APR														
07...	0940	--	9	9	81345	3.46	--	.96	2.4	742	11.5	115	7.5	
07...	0955	--	9	9	81345	3.46	--	.96	2.4	742	11.5	115	7.5	
MAY														
04...	1230	--	9	9	81345	3.47	--	1.0	3.3	746	9.6	96	7.3	
04...	1245	--	9	9	81345	3.47	--	1.0	3.0	746	9.5	95	7.3	
17...	0815	--	9	9	81345	3.39	--	.84	1.9	752	8.1	89	7.1	
17...	0830	--	9	9	81345	3.39	--	.84	1.7	752	7.9	87	7.1	
JUN														
07...	1015	--	9	9	81345	3.45	--	.57	3.3	747	7.8	89	7.3	
07...	1020	--	9	9	81345	3.45	--	.57	6.1	747	7.9	91	7.3	
JUL														
13...	0940	--	9	9	81345	3.43	--	.54	9.2	744	8.1	97	7.3	
13...	0945	--	9	9	81345	3.43	--	.54	9.2	744	8.1	97	7.3	
AUG														
06...	0755	--	9	J	81345	3.40	--	.59	23	743	7.1	84	6.9	
06...	0800	--	9	J	81345	3.40	--	.59	22	746	7.0	83	6.1	
SEP	16-16	1245	1250	9	J	81345	3.79	17	--	150	--	7.1	--	6.6
SEP	16-16	1315	1320	9	J	81345	4.43	43	--	140	--	7.6	--	6.7
SEP	16-16	1445	1450	9	J	81345	4.54	49	--	120	--	7.7	--	6.7
SEP	16-16	1545	1550	9	J	81345	5.61	175	--	--	--	8.2	--	6.5
	22...	1030	--	9	9	81345	3.45	--	.60	1.9	743	8.6	92	7.3

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**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Specif. conduc- tance, wat umf uS/cm 25 degC (00095)	Temper- ature, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Noncarb				Alka- linity, wat flt				Chlor- ide, water, mg/L (00940)	
				Hard- ness, wat flt	Calcium mg/L as CaCO3 (00905)	Magnes- ium, water, mg/L (00915)	Potas- sium, water, mg/L (00925)	Sodium adsorp- tion mg/L (00935)	Sodium, water, mg/L (00931)	Sodium, water, mg/L (00930)	Gran- ite, lab, mg/L as CaCO3 (00932)		
OCT													
16...	170	14.0	56	13	15.1	4.46	3.22	.5	8.78	24	43.5	.1	11.2
16...	171	14.5	55	12	14.9	4.38	3.12	.5	8.74	24	43.4	M	11.0
JAN													
05...	169	15.0	82	13	23.6	5.49	3.92	.7	14.2	26	68.6	M	16.5
05...	172	15.0	56	7	16.5	3.59	2.85	.6	10.6	28	49.0	M	12.1
21...	163	8.0	79	15	22.7	5.37	3.81	.7	14.0	27	63.8	.1	14.8
21...	166	8.0	82	82	23.5	5.52	3.88	.7	14.3	26	-.2	M	16.4
FEB													
02...	166	7.0	54	14	14.2	4.50	2.44	.5	7.72	23	39.7	<.02	11.2
02...	164	7.0	54	15	14.3	4.54	2.49	.5	7.97	23	39.7	<.02	11.1
MAR													
02...	160	15.0	62	24	16.7	4.77	2.66	.4	7.85	21	37.6	<.02	12.7
02...	160	15.1	61	23	17.1	4.30	2.82	.5	8.41	22	37.6	<.02	11.8
23...	156	13.5	55	18	15.0	4.29	2.59	.5	8.74	25	36.8	<.02	13.1
23...	158	13.5	54	17	14.7	4.14	2.63	.5	8.89	25	36.8	<.02	13.2
APR													
07...	162	14.0	53	12	14.1	4.21	2.56	.5	8.67	25	40.3	.1	11.6
07...	162	14.0	52	12	13.8	4.15	2.56	.5	8.54	25	39.8	.1	11.7
MAY													
04...	165	14.5	56	16	15.3	4.35	3.03	.4	7.22	21	40.1	.1	11.7
04...	161	14.5	49	10	13.5	3.77	2.91	.5	7.27	23	39.9	.1	11.5
17...	165	19.5	51	12	13.8	4.10	2.92	.5	8.42	25	39.0	.1	11.5
17...	165	19.5	64	25	18.1	4.53	3.54	.6	11.8	27	39.3	.1	11.5
JUN													
07...	354	20.5	51	8	14.6	3.44	3.80	2	39.0	60	42.7	<.02	59.8
07...	354	21.0	58	15	16.5	3.91	3.98	2	41.3	59	42.7	<.02	61.7
JUL													
13...	192	23.0	52	12	14.6	3.80	2.99	.6	9.56	27	39.8	.1	12.5
13...	193	23.0	53	13	14.6	3.90	3.00	.6	9.32	26	39.8	.1	12.5
AUG													
06...	152	22.5	42	10	12.9	2.32	4.08	.6	9.58	31	31.6	<.01	15.5
06...	153	22.8	44	--	13.6	2.42	3.98	.6	9.71	30	.0	<.01	15.6
SEP													
16-16	102	22.0	--	--	--	--	--	--	--	--	25.0	<.02	4.80
SEP													
16-16	61	22.5	--	--	--	--	--	--	--	--	18.2	<.02	3.07
SEP													
16-16	50	23.0	--	--	--	--	--	--	--	--	11.7	<.02	1.27
SEP													
16-16	--	22.5	--	--	--	--	--	--	--	--	13.0	<.02	.90
22...	179	17.5	--	--	--	--	--	--	--	--	45.5	.1	8.25

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**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Residue										Ortho-			Total	
	Silica, water, mg/L (00955)	Sulfate, water, mg/L (00945)	sum of filtrd, mg/L (70301)	Residue, consti- tuents (70303)	water, tons/ acre-ft (71846)	Ammonia, mg/L (00608)	water, mg/L as N (00618)	Nitrate, mg/L as N (00613)	Nitrite, mg/L as N (00660)	Ortho- phos- phate, mg/L as P (00671)	phos- phate, mg/L (00666)	Phos- phorus, mg/L (62854)	wat flt by anal ysis, mg/L (50468)	Defined Substr.	
OCT															
16...	23.4	13.9	114	.15	--	<.020	1.65	<.020	--	<.100	<.10	1.93	--		
16...	22.2	13.5	111	.15	--	<.020	1.60	<.020	--	<.100	<.10	1.81	290		
JAN															
05...	20.7	26.7	158	.21	--	<.020	1.15	<.020	--	<.100	<.10	1.47	9400		
05...	23.1	18.6	122	.17	--	<.020	1.18	<.020	--	<.100	<.10	1.80	--		
21...	20.8	28.6	153	.21	--	<.020	1.05	<.020	--	<.100	<.10	1.89	1400		
21...	19.9	26.4	115	.16	--	<.020	1.14	<.020	--	<.100	.21	1.95	--		
FEB															
02...	18.3	14.0	104	.14	--	<.020	1.73	<.020	--	<.100	<.10	1.94	780		
02...	18.4	14.2	105	.14	--	<.020	1.70	<.020	--	<.100	<.10	2.00	--		
MAR															
02...	11.6	14.9	101	.14	.05	.040	1.53	<.020	--	<.100	<.10	1.76	--		
02...	17.6	12.0	103	.14	--	<.020	1.39	<.020	--	<.100	<.10	1.51	860		
23...	18.3	14.4	105	.14	--	<.020	1.46	<.020	--	<.100	<.10	1.46	2200		
23...	18.0	14.6	105	.14	--	<.020	1.47	<.020	--	<.100	<.10	1.48	--		
APR															
07...	18.2	14.6	104	.14	.03	.020	1.20	.020	--	<.100	<.10	1.07	280		
07...	18.6	14.7	104	.14	.04	.033	1.21	.030	--	<.100	<.10	1.49	--		
MAY															
04...	21.9	16.0	110	.15	--	<.020	1.51	<.020	--	<.100	<.10	3.06	--		
04...	19.3	15.4	104	.14	.07	.054	1.46	<.020	--	<.100	<.10	1.73	7300		
17...	20.5	13.7	105	.14	.04	.030	1.39	.030	--	<.100	<.10	1.71	--		
17...	29.1	13.7	122	.17	.05	.038	1.39	.020	--	<.100	<.10	1.75	830		
JUN															
07...	16.3	15.6	185	.25	.15	.120	1.45	<.020	--	<.100	.10	3.50	490		
07...	17.9	15.2	193	.26	.19	.150	1.44	<.020	--	<.100	<.10	3.38	--		
JUL															
13...	17.8	13.4	105	.14	.03	.020	1.33	<.010	--	<.050	<.050	--	--		
13...	18.5	13.4	105	.14	.03	.020	1.34	<.010	--	<.050	<.050	--	1200		
AUG															
06...	11.6	7.9	86	.12	--	--	.72	<.010	--	--	--	--	--	--	
06...	12.0	8.2	--	--	--	--	.82	<.010	--	--	--	--	--	11000	
SEP															
16-16	--	9.2	--	--	.06	.050	.56	.030	--	<.100	<.10	--	140000		
SEP															
16-16	--	6.5	--	--	--	<.020	.42	<.020	--	<.100	<.10	--	88000		
SEP															
16-16	--	4.5	--	--	.03	.020	.35	.020	2.61	.850	1.03	--	46000k@		
SEP															
16-16	--	2.7	--	--	--	<.020	.30	<.020	--	<.100	<.10	--	50000		
22...	--	9.8	--	--	.18	.140	.62	<.020	--	<.100	<.10	--	580		

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**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Fecal coli/ col/ form, M-FC 0.7u MF	Total coli- form, Defined Tech., MPN/ col/ 100 mL	Barium, water, ug/L (50569)	Iron, water, ug/L (01005)	Stront- ium, water, ug/L (01046)	Di- chlor- vos, water ug/L (38775)
OCT						
16...	--	--	69.0	<100	70	--
16...	250k	19700	69.2	<100	70	--
JAN						
05...	E5100k	20500	38.3	130	110	--
05...	--	--	31.7	120	90	--
21...	390	8000	39.9	130	110	--
21...	--	--	52.8	130	110	--
FEB						
02...	320	3100	41.2	<100	70	--
02...	--	--	58.4	<100	70	--
MAR						
02...	--	--	22.6	<100	80	--
02...	460	4300	53.1	<100	80	--
23...	210	8000	48.7	<100	80	--
23...	--	--	45.6	<100	80	--
APR						
07...	360	7600	55.6	<100	70	--
07...	--	--	47.5	<100	70	--
MAY						
04...	--	--	46.9	<100	80	--
04...	5200	61000	36.8	<100	70	--
17...	--	--	48.4	<100	70	--
17...	590	18000	69.5	<100	90	--
JUN						
07...	540	24000	56.3	<100	80	--
07...	--	--	73.8	<100	90	--
JUL						
13...	--	--	--	<50	70	--
13...	930	23000	--	<50	70	--
AUG						
06...	--	--	--	<50	50	--
06...	29000	>240000k	--	<50	60	--
SEP	16-16	250000	9800000	--	--	--
SEP	16-16	220000k	7700000	--	--	--
SEP	16-16	60000k@	2400000k@	--	--	--
SEP	16-16	110000k	6900000	--	--	--
	22...	370	24000	--	--	--u

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**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Time	Hydro-logic event	Agency analyzing sample, code (00028)	Gage height (00065)	Dis-charge, cfs (00060)	Dis-charge, cfs (00061)	Turb-idity, IR LED	Baro-metric light, det ang 90 deg, FNLU (63680)	Dis-solved pres-sure, mm Hg (00025)	unfltrd oxygen, mg/L (00300)	pH, wat unf (00400)	Specif. conduc-tance, uS/cm (00095)	Temper-ature, 25 degC (00010)	Alum-inum, water, fltrd, ug/L (01106)
OCT														
16...	1121	9	80020	3.45	--	1.3	1.9	742	9.3	7.3	170	14.0	2	
16...	1141	9	80020	3.45	--	1.3	1.9	742	9.3	7.3	171	14.5	2	
JAN														
05...	1011	9	80020	3.54	--	2.4	5.5	--	9.6	6.8	169	15.0	2	
05...	1026	9	80020	3.54	--	2.4	3.8	--	9.6	6.8	172	15.0	3	
21...	1546	9	80020	3.55	--	.89	1.1	744	13.4	7.5	163	8.0	3	
21...	1616	9	80020	3.55	--	.89	2.4	744	13.3	7.5	166	8.0	3	
FEB														
02...	1126	9	80020	3.46	--	1.7	1.7	739	12.4	7.2	166	7.0	3	
02...	1151	9	80020	3.46	--	1.7	1.3	739	12.4	7.2	164	7.0	3	
MAR														
02...	1201	9	80020	--	--	1.2	3.2	754	13.8	8.1	160	15.0	6	
02...	1216	9	80020	--	--	1.2	4.2	754	14.0	8.1	160	15.1	6	
23...	1331	9	80020	3.47	--	1.0	2.9	759	13.9	8.6	156	13.5	5	
23...	1346	9	80020	3.47	--	1.0	2.7	759	13.9	8.7	158	13.5	6	
APR														
07...	0941	9	80020	3.46	--	.96	2.4	742	11.5	7.5	162	14.0	3	
07...	0956	9	80020	3.46	--	.96	2.4	742	11.5	7.5	162	14.0	3	
MAY														
04...	1231	9	80020	3.47	--	1.0	3.3	746	9.6	7.3	165	14.5	3	
04...	1246	9	80020	3.47	--	1.0	3.0	746	9.5	7.3	161	14.5	3	
17...	0816	9	80020	3.39	--	.84	1.9	752	8.1	7.1	165	19.5	4	
17...	0831	9	80020	3.39	--	.84	1.7	752	7.9	7.1	165	19.5	3	
JUN														
07...	1016	9	80020	3.45	--	.57	3.3	747	7.8	7.3	354	20.5	5	
07...	1021	9	80020	3.45	--	.57	6.1	747	7.9	7.3	354	21.0	5	
JUL														
13...	0941	9	80020	3.43	--	.54	9.2	744	8.1	7.3	192	23.0	3	
13...	0946	9	80020	3.43	--	.54	9.2	744	8.1	7.3	193	23.0	3	
AUG														
06...	0756	J	80020	3.40	--	.59	23	744	7.1	6.1	152	22.6	9	
06...	0801	J	80020	3.40	--	.59	22	747	7.0	6.1	153	22.9	12	
SEP	16-16		80020	3.79	17	--	150	--	7.1	6.6	102	22.0	114	
SEP	16-16		80020	4.43	43	--	140	--	7.6	6.7	61	22.5	84	
SEP	16-16		80020	4.54	49	--	120	--	7.7	6.7	50	23.0	120	
SEP	16-16		80020	5.61	175	--	--	--	8.2	6.5	--	22.5	190	
	22...		80020	3.45	--	--	1.9	743	8.6	7.3	179	17.5	2	

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**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Cadmium water, ug/L (01025)	Chrom- ium, water, ug/L (01030)	Copper, water, ug/L (01040)	Lead, water, ug/L (01049)	Mangan- ese, water, ug/L (01056)	Nickel, water, ug/L (01065)	Silver, water, ug/L (01075)	Zinc, water, ug/L (01090)
<b>OCT</b>								
16...	<.04	E.5n	1.2	<.08	7.4	.51	<.2	6.1
16...	<.04	<.8	1.3	E.05n	6.7	.53	<.2	7.6
<b>JAN</b>								
05...	<.04	<.8	1.1	.08	41.8	.70	<.2	7.3
05...	<.04	<.8	1.2	E.07n	42.8	.76	<.2	11.7
21...	<.04	<.8	1.2	.09	25.0	.59	<.2	8.0
21...	<.04	<.8	1.1	.09	23.4	.59	<.2	7.8
<b>FEB</b>								
02...	<.04	<.8	1.9	.10	36.9	.61	<.2	9.9
02...	<.04	<.8	1.2	.09	37.1	.63	<.2	10.2
<b>MAR</b>								
02...	<.04	<.8	1.5	.10	22.6	.64	<.2	4.6
02...	<.04	<.8	1.4	.10	24.9	.64	<.2	4.7
23...	<.04	<.8	1.4	.11	13.0	.83	<.2	5.9
23...	<.04	<.8	1.3	.12	12.3	.48	<.2	3.4
<b>APR</b>								
07...	<.04	<.8	1.3	.10	21.1	.50	<.2	5.3
07...	<.04	<.8	1.2	.11	20.5	.51	<.2	5.9
<b>MAY</b>								
04...	<.04	<.8	1.4	.15	18.2	.63	<.2	6.9
04...	<.04	<.8	1.3	.14	21.0	.64	<.2	7.0
17...	<.04	<.8	1.4	.13	14.6	.64	<.2	5.5
17...	<.04	<.8	1.4	.11	14.7	.60	<.2	5.6
<b>JUN</b>								
07...	<.04	E.4n	2.1	.13	9.7	.56	<.2	5.0
07...	<.04	<.8	2.0	.10	8.6	.54	<.2	4.8
<b>JUL</b>								
13...	<.04	<.8	1.5	<.08	9.3	.46	<.2	6.3
13...	<.04	<.8	2.1	.13	9.9	.54	<.2	5.9
<b>AUG</b>								
06...	<.04	E.4n	4.8	.27	9.1	.72	<.2	10.7
06...	E.02n	E.7n	4.9	.32	8.5	.72	<.2	9.8
<b>SEP</b>								
16-16	.07	.8	14.0	2.93	127	1.44	<.2	31.9
16-16	.04	E.7n	7.9	1.94	70.2	.90	<.2	19.0
16-16	.04	.9	5.9	1.75	24.9	.56	<.2	12.4
16-16	E.02n	.9	5.1	1.27	20.9	.50	<.2	8.2
22...	<.04	<.8	1.1	<.08	18.5	.45	<.2	6.4

**APALACHICOLA RIVER BASIN**  
**2004 Water Year**

**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Time	End time	Agency analyzing sample, code (00028)	Gage height, feet (00065)	Dis-charge, cfs (00060)	Instan-taneous dis-charge, cfs (00061)	Turb-idity, IR LED 90 deg, FNU (63680)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, mg/L (00301)	pH, water, unifltrd field, std units (00400)	Specif-conduc-tance, wat unf std units (00095)	Temper-ature, water, deg C (00010)
OCT 16...	1141	--	80020	3.45	--	1.3	1.9	742	9.3	91	7.3	171	14.5
JAN 05...	1011	--	80020	3.54	--	2.4	5.5	--	9.6	95	6.8	169	15.0
21...	1546	--	80020	3.55	--	.89	1.1	744	13.4	116	7.5	163	8.0
FEB 02...	1126	--	80020	3.46	--	1.7	1.7	739	12.4	105	7.2	166	7.0
MAR 02...	1216	--	80020	--	--	1.2	4.2	754	14.0	141	8.1	160	15.1
23...	1331	--	80020	3.47	--	1.0	2.9	759	13.9	134	8.6	156	13.5
APR 07...	0941	--	80020	3.46	--	.96	2.4	742	11.5	115	7.5	162	14.0
MAY 04...	1246	--	80020	3.47	--	1.0	3.0	746	9.5	95	7.3	161	14.5
17...	0831	--	80020	3.39	--	.84	1.7	752	7.9	87	7.1	165	19.5
JUN 07...	1016	--	80020	3.45	--	.57	3.3	747	7.8	89	7.3	354	20.5
JUL 13...	0946	--	80020	3.43	--	.54	9.2	744	8.1	97	7.3	193	23.0
AUG 06...	0801	--	80020	3.40	--	.59	22	747	7.0	83	6.1	153	22.9
SEP 16-16	1246	1251	80020	3.79	17	--	150	--	7.1	--	6.6	102	22.0
SEP 16-16	1316	1321	80020	4.43	43	--	140	--	7.6	--	6.7	61	22.5
SEP 16-16	1446	1451	80020	4.54	49	--	120	--	7.7	--	6.7	50	23.0
SEP 16-16	1546	1551	80020	5.61	175	--	--	--	8.2	--	6.5	--	22.5
22...	1031	--	80020	3.45	--	.60	1.9	743	8.6	92	7.3	179	17.5

Date	1,4-Di-chloro-benzene, water, ug/L (34572)	2,6-Dimethyl-naphth-alene, water, ug/L (62054)	2-Methyl-naphth-alene, water, ug/L (62055)	3-beta-naphth-tanol, water, ug/L (62056)	3-Methyl-1H-indole, water, ug/L (62057)	3-tert-Butyl-anisole, wat flt ug/L (62058)	4-4-hydroxyphenol, water, ug/L (62059)	4-Cumyl-phenol, water, ug/L (62060)	4-Octyl-phenol, water, ug/L (62061)	4-tert-Octyl-phenol, water, ug/L (62085)	4-tert-Octyl-phenol, water, ug/L (62062)	5-Meth-yl-1H-benzo-triazole, water, ug/L (62063)	9,10-Anthra-quinone water, ug/L (62066)	
OCT 16...	<.5	<.5	<.5	<.5	<2	M	<5	<1	<1	<5	<1	<2	<.5	
JAN 05...	<.5	<.5	<.5	<.5	<2	M	<5	<1	<1	<5	<1	<2	E.1	
21...	E.1	<.5	<.5	<.5	<2	M	<5	<1	<1	<5	<1	<2	<.5	
FEB 02...	<.5	<.5	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5	
MAR 02...	<.5	<.5	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5	
23...	<.5	<.5	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5	
APR 07...	<.5	<.5	<.5	<.5	<2	M	<5	<1	<1	<5	<1	<2	<.5	
MAY 04...	E.1	<.5	<.5	<.5	<2	M	<5	<1	<1	<5	<1	<2	<.5	
17...	<.5	<.5	<.5	<.5	<2	M	<5	<1	<1	<5	<1	<2	<.5	
JUN 07...	<.5	<.5	<.5	<.5	<2	M	<5	<1	<1	E1	<1	<2	<.5	
JUL 13...	<.5	<.5	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5	
AUG 06...	<.5	<.5	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	E.3t	
SEP 16-16	<.5	<.5	<.5	<.5	E1t	<1	<5	<1	<1	E2t	<1	<2	E.2t	
SEP 16-16	<.5	<.5	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	E.2t	
SEP 16-16	<.5	<.5	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	E.1t	
SEP 22...	<.5	<.5mc	<.5	<.5	<2	Mt	<1	<5mc	<1	<1	<5mc	<1	<2	<.5

**APALACHICOLA RIVER BASIN**  
**2004 Water Year**

**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Aceto-phenone water, ug/L (62064)	AHTN, water, ug/L (62065)	Anthra-cene, water, ug/L (34221)	Benzo-[a]-pyrene, water, ug/L (34248)	Benzo-phenone, water, ug/L (62067)	beta-Sitos-terol, water, ug/L (62068)	beta-Stigma-nol A, water, ug/L (62086)	Bisphe-nol A, water, ug/L (62069)	Broma-cil, water, ug/L (04029)	Caf-eine, water, ug/L (50305)	Camphor, water, ug/L (62070)	Car-baryl, water, ug/L (82680)	Carba-azole, water, ug/L (62071)
OCT 16...	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	E.5	E.1	<.5	<1	<.5
JAN 05...	<.5	M	<.5	<.5	E.1	<2	<2	<1	<.5	E.2	M	<1	<.5
21...	<.5	M	<.5	<.5	E.1	<2	<2	<1	<.5	E.2	M	<1	<.5
FEB 02...	<.5	M	<.5	<.5	<.5	<2	<2	<1	<.5	E.3	<.5	<1	<.5
MAR 02...	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	E.4	E.2	<.5	<1	<.5
23...	E.1	M	<.5	<.5	M	<2	<2	<1	<.5	E.2	<.5	<1	<.5
APR 07...	<.5	M	<.5	<.5	M	<2	<2	<1	<.5	E.2	M	<1	<.5
MAY 04...	<.5	M	<.5	<.5	<.5	<2	<2	<1	<.5	E.2	M	<1	M
17...	<.5	E.1	<.5	<.5	E.1	<2	<2	<1	<.5	E.2	E.1	<1	<.5
JUN 07...	<.5	E.1	<.5	<.5	E.1	<2	<2	<1	<.5	E.2	M	M	<.5
JUL 13...	<.5	E.lt	<.5	<.5	<.5	<2	<2	<1	E.3t	E.lt	<.5	<1	<.5
AUG 06...	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.5	E.5t	<.5	<1	<.5
SEP 16-16	<.5	<.5	E.2t	<.5	<.5	E2t	E1t	Mt	<.5	2.8	<.5	Mt	<.5
SEP 16-16	<.5	<.5	<.5	<.5	<.5	E1t	<2	<1	<.5	1.7	<.5	Mt	<.5
SEP 16-16	<.5	<.5	<.5	<.5	<.5	Mt	<2	Mt	<.5	.6	<.5	<1	<.5
SEP 16-16	<.5	<.5	<.5	<.5	<.5	Mt	<2	Mt	<.5	<.5	E.1t	<.5	Mt
22...	<.5	<.5	<.5	<.5	<.5	<2	<2	Mt	<.5	<.5	<1mc	<.5	<.5

Date	Chlor-pyrifos water, ug/L (38933)	Choles-terol, water, ug/L (62072)	Cot-inine, water, ug/L (62005)	DEET, water, ug/L (62082)	Diazi-non, phenol, water, ug/L (39572)	Diethoxy-nonyl phenol, water, ug/L (62083)	Diethoxy-octyl phenol, water, ug/L (61705)	D-Limo-nene, phenol, water, ug/L (62073)	Ethoxy-octyl phenol, water, ug/L (61706)	Fluor-anthene, water, ug/L (34377)	HHCB, water, ug/L (62075)	Indole, water, ug/L (62076)	Isobor-neol, water, ug/L (62077)
OCT 16...	<.5	<2	<1.00	E.2	<.5	<5	<1	<.5	<1	<.5	<.5	<.5	<.5
JAN 05...	<.5	<2	<1.00	E.1	<.5	<5	<1	<.5	<1	M	M	<.5	<.5
21...	<.5	<2	<1.00	E.1	<.5	<5	<1	<.5	<1	M	E.1	<.5	<.5
FEB 02...	<.5	<2	<1.00	E.1	<.5	<5	<1	<.5	<1	<.5	<.5	<.5	<.5
MAR 02...	<.5	<2	<1.00	E.1	<.5	<5	<1	<.5	<1	<.5	<.5	<.5	<.5
23...	<.5	<2	<1.00	M	<.5	<5	<1	<.5	<1	<.5	<.5	<.5	<.5
APR 07...	<.5	<2	<1.00	E.1	<.5	<5	<1	<.5	<1	<.5	E.1	M	<.5
MAY 04...	<.5	<2	<1.00	E.1	<.5	<5	<1	<.5	<1	<.5	<.5	<.5	<.5
17...	<.5	<2	<1.00	E.2	28.0	<5	<1	<.5	<1	M	<.5	<.5	<.5
JUN 07...	<.5	<2	<1.00	.6	E.1	<5	<1	<.5	<1	M	<.5	<.5	<.5
JUL 13...	<.5	<2	<1.00	E.3t	<.5	<5	<1	<.5	<1	Mt	<.5	<.5	<.5
AUG 06...	<.5	<2	<1.00	.8	<.5	<5	Mt	<.5	Mt	E.1t	<.5	<.5	<.5
SEP 16-16	<.5	E2t	<1.00	1.9	<.5	E7	Mt	<.5	Mt	E.1t	<.5	<.5	<.5
SEP 16-16	<.5	E1t	<1.00	1.9	<.5	<5	<1	E.1n	<1	<.5	<.5	<.5	<.5
SEP 16-16	<.5	Mt	<1.00	.7	<.5	E2t	<1	<.5	<1	E.1t	<.5	<.5	<.5
SEP 22...	<.5	Mt	<1.00	E.3t	<.5	<5mc	Mmtc	E.1mnc	<1mc	<.5	<.5	<.5	<.5

**APALACHICOLA RIVER BASIN**  
**2004 Water Year**

**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Iso-phorone water, fltrd, ug/L (34409)	Iso-propylbenzene water, fltrd, ug/L (62078)	Iso-quinoline, water, fltrd, ug/L (62079)	Menthol water, fltrd, ug/L (62080)	Meta-laxyl water, fltrd, ug/L (50359)	Methyl salicylate, water, fltrd, ug/L (62081)	Metolachlor, water, fltrd, ug/L (39415)	Naphthalene, water, fltrd, ug/L (34443)	p-Cresol, water, fltrd, ug/L (62084)	Penta-chlorophenol, water, fltrd, ug/L (34459)	Phenanthrene, water, fltrd, ug/L (34462)	Phenol, water, fltrd, ug/L (34466)	Prometon, water, ug/L (04037)
OCT 16...	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	M	<2	<.5	.5	<.5
JAN 05...	<.5	<.5	<.5	E.1	<.5	<.5	<.5	<.5	M	<2	M	E.2	<.5
21...	M	<.5	<.5	<.5	<.5	<.5	<.5	<.5	M	<2	<.5	E.2	<.5
FEB 02...	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5	<.5	<.5
MAR 02...	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5	E.2	<.5
23...	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	M	<2	<.5	E.3	<.5
APR 07...	<.5	<.5	<.5	M	<.5	<.5	<.5	M	M	<2	M	E.5	<.5
MAY 04...	M	<.5	<.5	E.1	<.5	M	<.5	<.5	M	<2	<.5	E.3	<.5
17...	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	M	<2	M	E.3	<.5
JUN 07...	E.1	<.5	<.5	E.1	.9	E.1	<.5	<.5	M	<2	M	1.0	<.5
JUL 13...	<.5	<.5	<.5	E.1t	<.5	<.5	<.5	<.5	Mt	<2	<.5	1.2	E.2t
AUG 06...	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5	.9	<.5
SEP 16-16	<.5	<.5	<.5	<.5	<.5	E.1t	<.5	<.5	Mt	<.5	2.9	<.5	
SEP 16-16	E.1t	<.5	<.5	<.5	<.5	<.5	<.5	<.5	Mt	<.5	.8	<.5	
SEP 16-16	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	Mt	<.5	.8	<.5	
SEP 16-16	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	Mt	<.5	1.0	<.5	
22...	<.5	<.5mc	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2mc	<.5	1.1	<.5

Date	Tetra-chloroethene, water, fltrd, ug/L (34470)	Tri-bromoethene, water, fltrd, ug/L (34476)	Tri-methane phos- phate, water, fltrd, ug/L (34288)	Tri-butyl phos- phate, water, fltrd, ug/L (62089)	Tri-phenyl citrate, water, fltrd, ug/L (62090)	Tri-phosphate, water, fltrd, ug/L (62091)	Tris(2-butoxyethyl), water, fltrd, ug/L (62092)	Tris(2-chloroethyl), water, fltrd, ug/L (62093)	Tris(2-phosphoethyl), water, fltrd, ug/L (62087)	Tris(2-phosphate), water, fltrd, ug/L (62088)	Tris(di-chlorovinyl), water, fltrd, ug/L (38775)
OCT 16...	<.5	E.1	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
JAN 05...	M	E.2	<.5	<.5	M	E.1	M	<.5	<.5	E.1	<1.00
21...	M	E.3	<.5	<.5	M	<.5	<.5	<.5	<.5	<.5	<1.00
FEB 02...	<.5	E.2	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
MAR 02...	<.5	<.5	<.5	E.1	<1	<.5	M	<.5	<.5	E.1	<1.00
23...	<.5	E.2	<.5	<.5	M	<.5	<.5	<.5	<.5	<.5	<1.00
APR 07...	<.5	E.1	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
MAY 04...	M	E.1	<.5	<.5	<1	<.5	E.1	<.5	<.5	E.1	<1.00
17...	M	E.1	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
JUN 07...	M	E.1	E.1	E.3	<1	<.5	<.5	<.5	E.1	E.1	<1.00
JUL 13...	Mt	E.1t	<.5	<.5	<1	<.5	Mt	E.2t	E.1t	<.5	<1.00
AUG 06...	E.1t	<.5	<.5	<.5	<1	<.5	<.5	E.8	<.5	<.5	--u
SEP 16-16	Mt	E.2t	<.5	<.5	<1	<.5	E.1n	9.6	E.2t	<.5	--u
SEP 16-16	<.5	E.2t	<.5	<.5	<1	<.5	E.1n	E6.4	E.1t	<.5	--u
SEP 16-16	Mt	E.1t	<.5	<.5	<1	<.5	E.1n	1.6	<.5	E.1t	--u
SEP 16-16	<.5	Mt	<.5	<.5	<1	<.5	<.5	.6	<.5	<.5	--u
22...	<.5	E.1mtc	<.5mc	<.5	<1	<.5	<.5	<.5	<.5	<.5	--u

**APALACHICOLA RIVER BASIN**  
**2004 Water Year**

**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Date	Time	End time	Medium code	Hydro-logic event	Agency analyzng sample, (00028)	Gage height, feet (00065)	Dis-charge, cfs (00060)	Instan-taneous dis-charge, cfs (00061)	Turb-idity, IR LED light, 90 deg, FNU (63680)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uratio (00301)	pH, water, unfltrd field, std units (00400)	
OCT 16...		1120	--	1	9	81350	3.45	--	1.3	1.9	742	9.3	93	7.3
JAN 05...	1035	--	1	9	81350	3.54	--	2.4	4.0	--	9.6	--	6.8	
21...	1617	--	1	9	81350	3.55	--	.89	2.4	744	13.3	115	7.5	
MAR 02...	1202	--	1	9	81350	--	--	1.2	3.2	754	13.8	138	8.1	
23...	1347	--	1	9	81350	3.47	--	1.0	2.7	759	13.9	134	8.7	
APR 07...	0957	--	1	9	81350	3.46	--	.96	2.4	742	11.5	115	7.5	
MAY 04...	1232	--	1	9	81350	3.47	--	1.0	3.3	746	9.6	96	7.3	
17...	0817	--	1	9	81350	3.39	--	.84	1.9	752	8.1	89	7.1	
JUN 07...	1022	--	1	9	81350	3.45	--	.57	6.1	747	7.9	91	7.3	
JUL 13...	0942	--	1	9	81350	3.43	--	.54	9.2	744	8.1	97	7.3	
AUG 19...	0815	--	1	9	81350	3.45	--	--	--	--	--	--	--	
SEP 16-16	1317	1322	1	J	81350	4.43	43	--	140	--	7.6	--	6.7	
SEP 16-16	1447	1452	1	J	81350	4.54	49	--	120	--	7.7	--	6.7	
SEP 16-16	1547	1552	1	J	81350	5.61	175	--	--	--	8.2	--	6.5	
22...	1032	--	1	9	81350	3.45	--	.60	1.9	743	8.6	92	7.3	

Date	Specif. conduc-tance, wat unf 25 degC (00095)	Temper-ature, water, deg C (00010)	Alum-inum, suspnd sedimnt total, percent (30221)	Anti-mon, suspnd sedimnt total, ug/g (29816)	Arsenic suspnd sedimnt total, ug/g (29818)	Barium, suspnd sedimnt total, ug/g (29820)	Beryll-ium, suspnd sedimnt total, ug/g (29822)	Cadmium suspnd sedimnt total, ug/g (29826)	Chrom-ium, suspnd sedimnt total, ug/g (29829)	Cobalt, suspnd sedimnt total, ug/g (35031)	Copper, suspnd sedimnt total, ug/g (29832)	Iron, suspnd sedimnt total, percent (30269)	Lead, suspnd sedimnt total, ug/g (29836)
OCT 16...	170	14.0	1.3	1.2	4.7	420	M	.5	88	8	37	1.6	30
JAN 05...	171	15.0	4.3	3.2	7.8	450	2	1.9	100	41	83	3.7	98
21...	166	8.0	3.9	6.8	3.4	1100	2	<.6	170	15	80	3.2	460
MAR 02...	160	15.0	.930	.6	1.5	210	M	1.0	37	6	150	1.5	30
23...	158	13.5	2.3	1.3	2.9	360	2	1.2	75	16	72	2.4	69
APR 07...	162	14.0	3.1	2.3	4.2	450	2	.4	82	18	64	3.9	73
MAY 04...	165	14.5	6.3	1.3	8.5	430	2	1.1	--o	26	120	4.8	99
17...	165	19.5	6.0	3.7	8.1	540	2	.9	260	26	89	4.4	140
JUN 07...	354	21.0	6.2	2.5	4.5	570	2	1.0	200	24	100	3.9	150
JUL 13...	192	23.0	8.3	3.8	9.3	630	3	1.5	200	29	120	5.3	180
AUG 19...	--	--	1.8	1.8	7.6	380	M	1.4	--x	--	130	3.9	83
SEP 16-16	61	22.5	8.8	5.7	9.9	520	3	1.2	83	29	140	4.9	170
SEP 16-16	50	23.0	9.5	5.7	18	470	3	.9	87	23	120	4.8	160
SEP 16-16	--	22.5	8.3	1.9	6.9	440	2	.4	68	20	69	4.2	100
22...	179	17.5	6.2	1.3	6.6	150	2	2.3	250	24	71	3.7	52

## **APALACHICOLA RIVER BASIN 2004 Water Year**

**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

	Lithium suspd sedimnt total, ug/g (35050)	Mangan- ese, suspdn sedimnt total, ug/g (29839)	Mercury suspd sedimnt total, ug/g (29841)	Molyb- denum, suspdn sedimnt total, ug/g (29843)	Nickel, suspdn sedimnt total, ug/g (29845)	Selen- ium, suspdn sedimnt total, ug/g (29847)	Silver, suspdn sedimnt total, ug/g (29850)	Stront- ium, suspdn sedimnt total, ug/g (35040)	Thall- ium, suspdn sedimnt total, ug/g (49955)	Titan- ium, suspdn sedimnt total, ug/g (30317)	Vanad- ium, suspdn sedimnt total, ug/g (29853)	Zinc, suspdn sedimnt total, ug/g (29855)	Uranium suspdn sedimnt total, ug/g (35046)
OCT													
16...	11	1500	<.01	9	47	2	<.5	460	<50	.059	19	240	<50
JAN													
05...	15	7300	<.02	5	100	2	<1	70	<100	.210	58	820	<100
21...	13	1500	--o	5	51	1	<3	97	<300	.220	57	510	<300
MAR													
02...	5	1000	--o	4	21	2	<1	140	<100	.059	13	360	<100
23...	11	2100	--o	4	39	2	<1	60	<100	.150	42	650	<100
APR													
07...	17	2500	.39	8	44	2	<1	310	<100	.160	44	380	<100
MAY													
04...	29	1300	--o	--o	--o	2	<.5	320	<50	.320	78	300	<50
17...	15	3600	.14	23	180	3	<1	230	<100	.360	76	450	<100
JUN													
07...	29	2600	.32	22	110	2	<2	190	<150	.640	59	480	<150
JUL													
13...	31	3300	.23	16	110	2	<1	200	<100	.400	92	560	<100
AUG													
19...	12	940	--o	--x	--x	3	2	470	<100	.110	43	190	<100
SEP													
16-16	38	2600	--o	5	40	2	2	140	<200	.540	110	580	<200
SEP													
16-16	37	1500	--o	<7	42	1	<4	150	<350	.530	120	460	<350
SEP													
16-16	29	980	.11	2	36	M	<1	72	<100	.530	96	250	<100
22...	27	2100	--o	23	140	2	1	310	<50	.320	65	280	<50

Date	Susnd. sedimnt conc, flow through cntrfug mg/L (50279)
OCT 16...	.2
JAN 05...	4
21...	.9
MAR 02...	3
23...	2
APR 07...	2
MAY 04...	2
17...	2
JUN 07...	3
JUL 13...	2
AUG 19...	1
SEP 16-16	167
SEP 16-16	99
SEP 16-16	607
22...	2

**APALACHICOLA RIVER BASIN**  
**2004 Water Year**

**02336228 LULLWATER CREEK AT LULLWATER PARKWAY, AT ATLANTA, GA—  
continued.**

Remark codes used in this table:

< -- Less than  
> -- Greater than  
E -- Estimated value  
M -- Presence verified, not quantified

Value qualifier codes used in this table:

@ -- Holding time exceeded  
c -- See laboratory comment  
k -- Counts outside acceptable range  
m -- Value is highly variable by this method  
n -- Below the LRL and above the LT-MDL  
t -- Below the long-term MDL

Null value qualifier codes used in this table:

o -- Insufficient amount of water  
u -- Unable to determine-matrix interference  
x -- Result failed quality assurance review